

**iSWA practice:  
Creating an iSWA layout for  
September 2017 space weather  
events**

**<https://iswa.gsfc.nasa.gov>**

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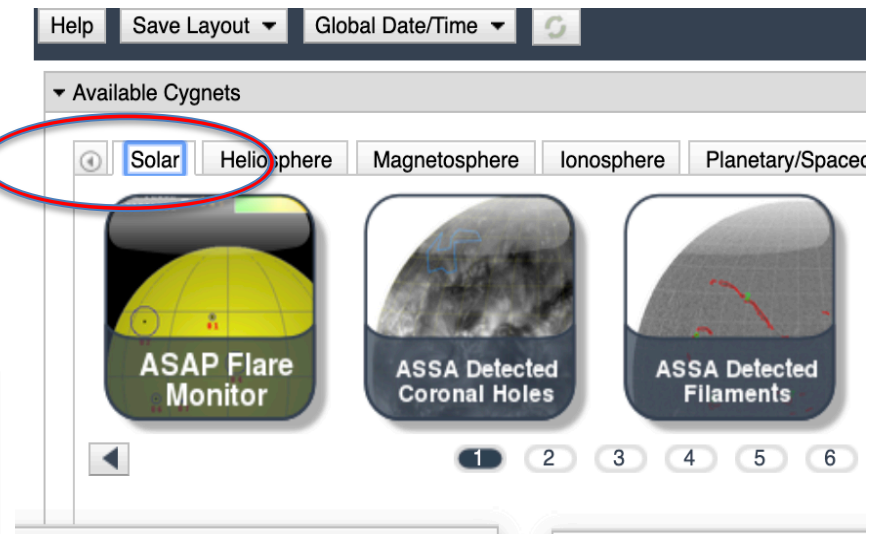
# Sept. 6, 2017 chain of events: Solar flare, CME, SEP

<https://iswa.gsfc.nasa.gov>

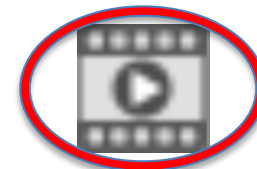
1) X9.3-class solar flare on Sept. 6 ending after **12:10** (peaking at **12:02**)

On the **Solar TAB**

open the **SDO AIA 131**  
image cygnet:



Set the **global Date/Time** to 12:10 and on the  
cygnet switch to the **movie mode**:



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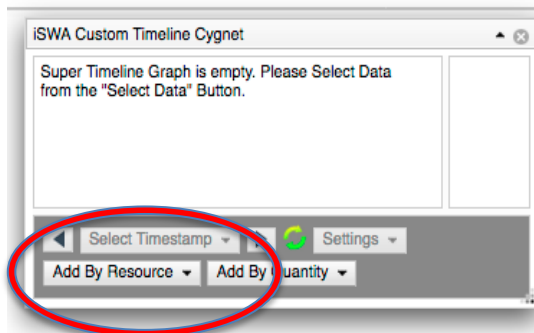
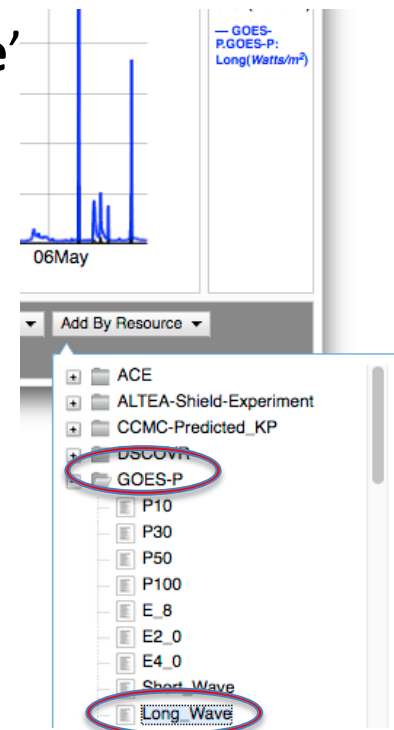
- 1) **Solar flare:** X9.3-class flare peaking at **12:02** on **September 6**  
On the **bETA Tab** open the **iSWA Super Timeline**



then click “**Add by Resource**”  
and select

“**GOES-P**” → “**Long\_Wave**”

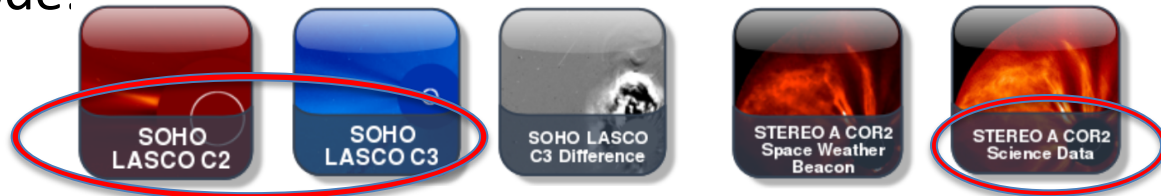
Then apply Global Date/Time



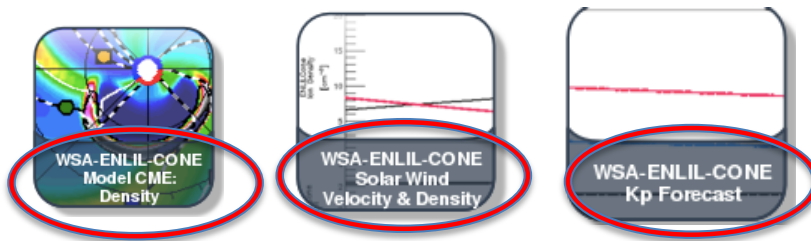
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Save  
your layout!

2) Fast **CME** starting at **12:24 on September 6** (enter Global Time 14:24 to see the CME propagating in Heliosphere)  
Use **Solar TAB** to open the **SOHO LASCO** and **STEREO COR2** cygnets in the movie mode:



To view the simulation for this CME use cygnets in **Events TAB**:



Look for CME simulated on **2017-09-06 at 14:03**

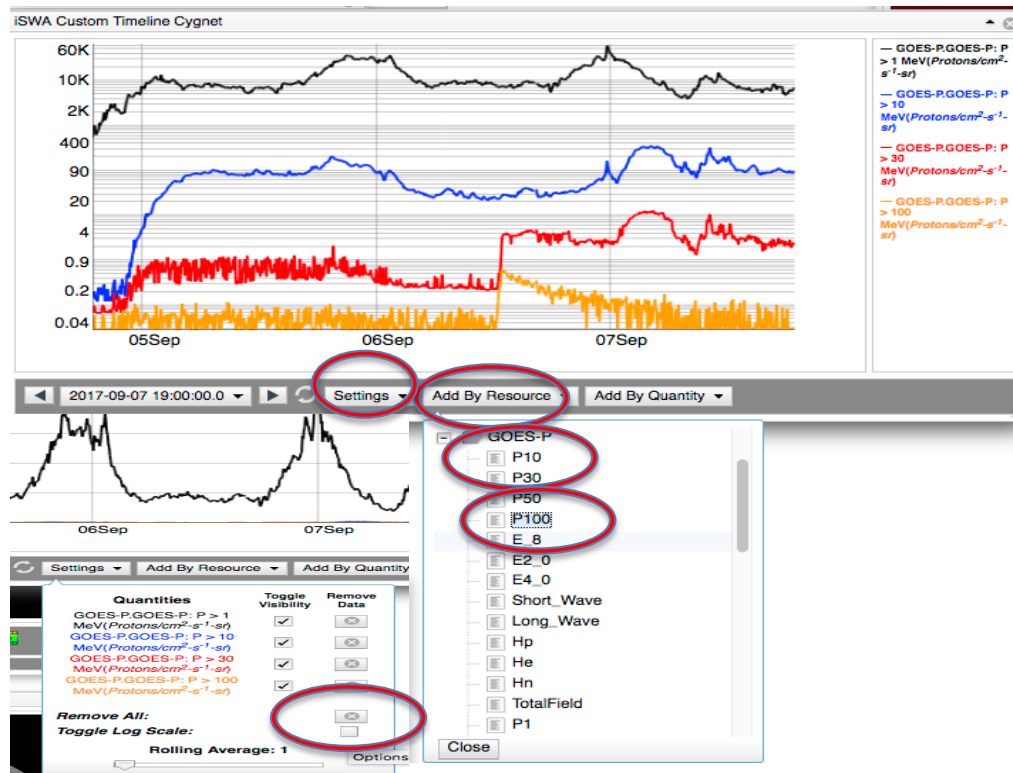
*Predicted arrival  
2017-09-08T18:35  
and max predicted Kp=5*

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## 3) Solar Energetic Particle (SEP) event after 12:00.

On the **bETA Tab** open the **Super Timeline**.

In “**Add by Resource**” select **P10**, **P100** and in “**Settings**” check the **Toggle Log Scale** box.



# Continue building the layout for this chain of events: the CME arrival on Sept. 7, GS, MC

4) Observed Interplanetary Shock Arrival (IPS) on 2017-09-07T22:30Z.  
**bETA TAB** (SuperTimeline - DSCOVR → Bx, By, Bz):

(To see this picture,  
enter the date of  
2017-09-09)

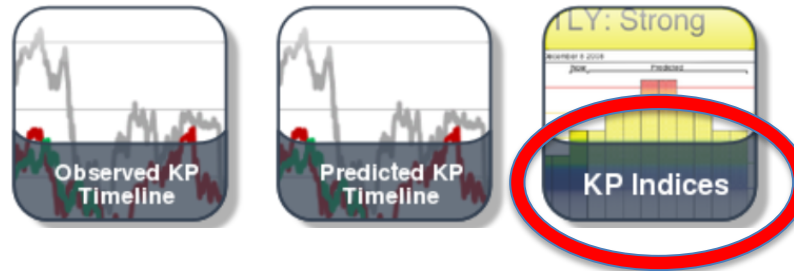


We suggest to select:  
Bx first,  
By 2<sup>nd</sup>,  
Bz 3<sup>rd</sup>,  
then **Bz** will be in red.

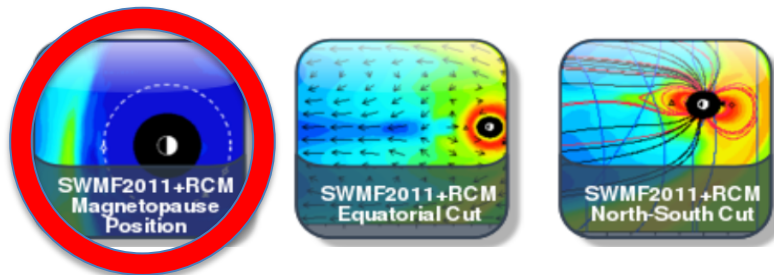
## More events in this chain of events: IPS, GS, MC

5) Observed **Geomagnetic Storm (GS)** at 2017-09-07T21:00Z.

**Magnetosphere TAB:**



6) Modeled **Magnetopause** compression and magnetopause crossing (MC) at 2017-09-07T23:58Z. **Magnetosphere TAB:**



**Send us your final iSWA layout at (link  
is on the web page)**